

Talbot County Region V (Tilghman) Wastewater Treatment Plant Proposed Wind Turbine

Result of Balloon Tests (August 31, 2011)

And

Computer Simulations



Region V (Tilghman) Wastewater Treatment Plant

General Information

Last year's electrical costs: \$22,500

Estimated electric usage at plant: 150,000 kW-hours

– Proposed Wind Turbine:

• Endurance – 50 KW unit

• Estimated annual electricity production: 150,000 kW-hours

Total height of Turbine (ground level to tip of blade): 152 ft
Diameter of blades: 63 ft

Monopole Tower

Proposed Electric savings: \$13,000
 (Savings does not include revenues from Renewable Energy Credits (RECs)

Funding

- MDE allocated \$300,000 in grants and \$300,000 in low interest loans for renewable energy facilities at the plant.
- Proposed project would be one 50kW wind turbine with up to 50 kW of solar panel arrays.

Region V (Tilghman) Wastewater Treatment Plant

- General Information
 - Funding
 - Maryland Department of the Environment allocated \$300,000 in grants and \$300,000 in low interest loans for renewable energy facilities at the plant.
 - Maryland Energy Administration \$75,000 from Wind Swept Grant and up to \$25,000 in grant funds for Solar Energy
 - Proposed project would be one 50kW wind turbine with up to 50 kW of solar panel arrays.

Wind Turbine Estimated Construction Cost: \$380,000 - \$400,000
10 kW Solar Arrays: \$50,000/10 kW Array

Proposed Base Bid

» One (1) 50 kW Wind Turbine and 20 kW solar Array

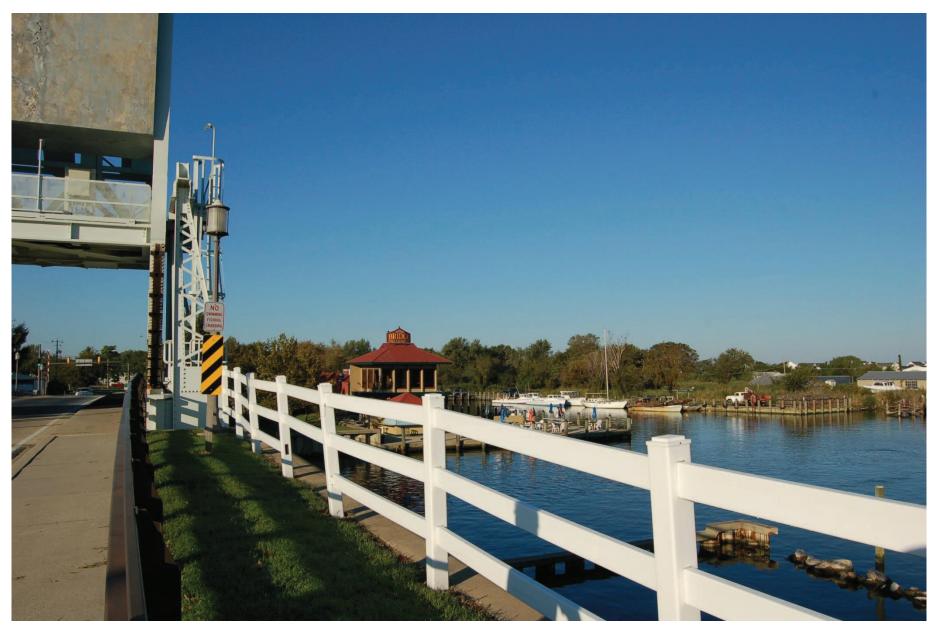
» Add-Alternate: add price to install 10 kW solar array up to 30 kW.

» Base Bid Estimate: \$500,000

» Add Alternate Estimate: \$50,000 - \$150,000



Proof of Balloon Tests on August 31, 2011



Not Visible – Knapps Narrow Bridge



Not Visible – Black Walnut Point



Not Visible – Bar Neck/Bar Neck Road



Not Visible – Intersection of Black Walnut Point and Bar Neck Roads



Not Visible – Dogwood Harbor



Fairbank Road



Fairbank Road



Back Creek Park at Platform – Balloon Tests



Back Creek Park at Platform – Wind Turbine View



Back Creek Park – Balloon Test



Sunset Avenue (Private Pier) – Balloon Test



Sunset Avenue (Private Pier) – Wind Turbine View



Cooperstown Road / Sunset Ave – Balloon Test



Cooperstown Road / Sunset Ave – Wind Turbine View



Tilghman Baseball Park – Balloon Test



Tilghman Elementary School – Balloon Test



Harrisons Parking Lot – Balloon Test



Harrisons Parking Lot – Wind Turbine View



Tilghman on the Chesapeake Club House Parking Lot-Balloon Tests



Tilghman on the Chesapeake Club House Parking Lot Wind Turbine View

Chesapeake Community College



Chesapeake Community College



Bio-Solids Facility (Klondike Road)



Bio-Solids Facility (Klondike Road)



Questions or Comments

Process:

- Forward information to the Talbot County and seek direction as to how to proceed.
- Forward final plans and specifications to MDE for their review and comments.
- Issues and/or Concerns can be forward to the County Council:

Talbot County Council 11 N. Washington Street Easton, Maryland 21601 (410) 770-8010